

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-86. (Canceled).

87. (Currently Amended) A semiconductor device comprising:
a first thin film transistor provided in a matrix pixel circuit over a substrate; and
a second thin film transistor provided in a peripheral driving circuit over said substrate, each of said first and second thin film transistors comprising:
a crystalline semiconductor island;
source and drain regions in said crystalline semiconductor island;
a channel forming region between said source and drain regions;
a gate insulating film adjacent to at least said channel forming region; and
a gate electrode adjacent to said channel forming region having said gate insulating film therebetween,
wherein each of said crystalline semiconductor islands of said first and second thin film transistors is formed in a monodomain region which contains no grain boundary,
wherein at least one of hydrogen and halogen element is contained at a concentration not higher than $1 \times 10^{20} \text{ cm}^{-3}$ in said monodomain regions of said first and second thin film transistors,
wherein said crystalline semiconductor island of said ~~[[first]]~~ second thin film transistor includes a nickel at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $5 \times 10^{17} \text{ cm}^{-3}$,
wherein said crystalline semiconductor island of said ~~second~~ first thin film transistor includes nickel at a concentration of $1 \times 10^{16} \text{ cm}^{-3}$ or less.

88. (Previously Presented) A device according to claim 87, wherein each of said crystalline semiconductor islands of said first and second thin film transistors comprises a material selected from the group consisting of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu, Ag, Au.

89. (Canceled)

90. (Previously Presented) A device according to claim 87, wherein each of said

crystalline semiconductor islands of said first and second thin film transistors is a silicon island.

91. (Previously Presented) A device according to claim 87, wherein each of said crystalline semiconductor islands of said first and second thin film transistors includes carbon and nitrogen at a concentration not lower than $1 \times 10^{16} \text{ cm}^{-3}$, and oxygen at a concentration not lower than $1 \times 10^{17} \text{ cm}^{-3}$.

92. (Previously Presented) A device according to claim 87, wherein said monodomain regions of said first and second thin film transistors have a grain size of $50 \mu\text{m}$ or more.

93-122. (Canceled)

123. (Currently Amended) A semiconductor device comprising:
a first thin film transistor provided in a matrix pixel circuit over a substrate; and
a second thin film transistor provided in a peripheral driving circuit over said substrate, each of said first and second thin film transistors comprising:

- a crystalline semiconductor island;
- source and drain regions in said crystalline semiconductor island;
- a channel forming region between said source and drain regions;
- a gate insulating film adjacent to at least said channel forming region; and
- a gate electrode adjacent to said channel forming region having said gate insulating film therebetween,

wherein each of said crystalline semiconductor islands of said first and second thin film transistors includes carbon and nitrogen at a concentration not higher than $5 \times 10^{18} \text{ cm}^{-3}$,

wherein each of said crystalline semiconductor islands of said first and second thin film transistors is formed in a monodomain region which contains no grain boundary,

wherein each of said crystalline semiconductor islands of said first and second thin film transistors includes at least one of hydrogen and halogen element at a concentration not higher than $1 \times 10^{20} \text{ cm}^{-3}$ in said monodomain region,

wherein said crystalline semiconductor island of said ~~[[first]]~~ second thin film transistor includes ~~a~~ nickel at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $5 \times 10^{17} \text{ cm}^{-3}$,

wherein said crystalline semiconductor island of said ~~second~~ first thin film transistor includes nickel at a concentration of $1 \times 10^{16} \text{ cm}^{-3}$ or less.

124. (Previously Presented) A device according to claim 123, wherein each of said crystalline semiconductor islands of said first and second thin film transistors comprises a material selected from the group consisting of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt, Cu, Ag, Au.

125. (Canceled)

126. (Previously Presented) A device according to claim 123, wherein each of said crystalline semiconductor islands of said first and second thin film transistors is a silicon island.

127. (Previously Presented) A device according to claim 123, wherein each of said crystalline semiconductor islands of said first and second thin film transistors includes carbon and nitrogen at a concentration not lower than $1 \times 10^{16} \text{ cm}^{-3}$, and oxygen at a concentration not lower than $1 \times 10^{17} \text{ cm}^{-3}$.

128. (Previously Presented) A device according to claim 123, wherein said monodomain regions of said first and second thin film transistors have a grain size of $50 \mu\text{m}$ or more.

129-136. (Canceled)

137. (Previously Presented) A device according to claim 91, wherein each of the concentrations of carbon, nitrogen and oxygen is measured by secondary ion mass spectroscopy (SIMS).

138-142. (Canceled).

143. (Previously Presented) A device according to claim 127, wherein each of the concentrations of carbon, nitrogen and oxygen is measured by secondary ion mass spectroscopy (SIMS).

144-148. (Canceled)

149. (Previously Presented) The semiconductor device according to claim 87 wherein said crystalline semiconductor islands of said first and second thin film transistors include carbon and nitrogen at a concentration not higher than $5 \times 10^{18} \text{ cm}^{-3}$, and oxygen at a concentration not higher than $5 \times 10^{19} \text{ cm}^{-3}$.

150-155. (Canceled)